PS Ref. No.: IBMK30164

REMARKS

This is intended as a full and complete response to the Final Office Action dated March 19, 2007, having a shortened statutory period for response set to expire on June 19, 2007. Applicants submit this response to place the application in condition for allowance or in better form for appeal. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1, 4-20 and 23-42 are pending in the application. Claims 1, 4-20 and 23-42 remain pending following entry of this response. Claim 42 has been amended to correct minor editorial problems. Applicants submit that the amendment does not introduce new matter.

Claim Rejections - 35 U.S.C. § 101

Claims 1-41 are still rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

In Applicant's previous response, filed October 17, 2006, we stated:

While Applicants' disagree with the Examiner's basis for the present rejection, Applicants' have nevertheless made amendments in order to move prosecution forward. Specifically, claims 1-19 have been amended to recite a computer-implemented method. In addition, scheduling the execution of queries on the basis of predetermined query eligibility criteria and a timeframe is clearly a useful, concrete and tangible result. Regarding claims 20-38 the claims have been amended as suggested by the Examiner to recite a "storage" medium. Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

Applicants respectfully submit that the Examiner has not addressed these arguments and amendments in the current action. Further, Applicants maintain that a computer readable storage medium containing a program is directed to patentable subject matter. A claimed invention is directed to a practical application of a § 101 judicial exception when it "transforms" an article or physical object to a different state or thing. MPEP § 2106.IV.C.2.(A). A computer readable storage medium is a physical article, and reading and/or writing a program from/onto a computer readable storage medium is a physical transformation of that physical article into a different state.

PS Ref. No.: IBMK30164

In light of Applicant's previous amendments and arguments, Applicants respectfully request withdrawal of this rejection.

Claim Rejections - 35 U.S.C. § 103

Claims 1-7, 10-12, 15-17, 20-26, 29-31, 34-36, and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Snodgrass et al.* (U.S. PG Pub No. 2004/0117359, hereinafter *Snodgrass*), in view of *Rubert et al.* (US Patent No. 6,366,915, hereinafter *Rubert*).

Claims 8-9, 13-14, 18-19, 27-28, 32-33, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Snodgrass*, in view of *Rubert* as applied to claims 1-7, 10-12, 15-17, 20-26, 29-31, 34-36, and 39-42 above, further in view of *Lomet et al.* (US Patent No. 5,212,788, hereinafter *Lomet*).

Applicants respectfully traverse these rejections.

Applicants incorporate, by reference, the arguments made in the previous response to office action mailed on October 17, 2006.

In the current action the Examiner maintains that *Snodgrass* teaches "providing at least one query execution schedule configured to schedule specific queries against a database in the data processing system; wherein the at least one query execution schedule is stored in a storage medium and defines query eligibility criteria identifying the specific queries and a timeframe available for executing the specific queries." Respectfully, Applicants disagree and provide the following further clarification.

Snodgrass deals only with a query execution <u>plan</u>. These plans are directed solely to the running of a single query, in a given case. That is, for a given query, a query optimizer develops a plurality of access plans (also known as query execution plans), and then selects one access plan from the plurality. Each of the plurality of access plans has an associated cost (a required amount of system resources to execute the query), and the selected access plan is typically the one with the lowest cost. In this regard, *Snodgrass* discloses nothing more than conventional query optimization.

PS Ref. No.: IBMK30164

Inexplicably, the Examiner appears to conclude without support (and, in fact, contrary to the well known meaning of query optimization) that an access plan and the claimed scheduling of a query are the same. (See, page 25 of the present action, stating "[t]herefore one of the best plan/schedule is being chosen for the execution of a query.") This conclusion is particularly surprising in light of the fact that the references relied on by the Examiner clearly illustrate the difference between query optimization (*Snodgrass*) and query scheduling (*Rubert*).

As discussed in previous responses, a plan is primarily directed to how a query is run, while a schedule is primarily directed to when it will run. Further, the present claims make clear that scheduling of a given query is done relative to other queries. The present claims specifically recite a "query execution schedule configured to schedule specific queries." Note the plurality of "queries." Query execution plans, on the other hand, are developed and selected for a given query in your respective of other queries. The "plans" in Snodgrass simply do not deal with multiple queries. Therefore, even assuming, arguendo, that selecting a query execution plan is the same as scheduling when a query will execute, a selected plan does not provide a schedule for more than one query.

In this regard, Applicants note another related mischaracterization of *Snodgrass*. At page 5 of the present Final Office Action, the Examiner argues that *Snodgrass* teaches a query execution schedule that is stored in a storage medium and defines query eligibility criteria identifying specific queries. Specifically, the Examiner points to paragraph 0016 of *Snodgrass*, which teaches "means for selecting, according to a criteria, which query plan to be used when processing a query, said criteria being based on the result from said cost calculating means". Applicants point out that the selection criteria is used for selecting a query plan for a <u>single query</u> ("used when processing a query"). Accordingly, the criteria relied upon by the Examiner are not query eligibility criteria identifying specific <u>queries</u> (<u>plural</u>). Moreover, the "criteria" of *Snodgrass* does not identify a specific query (much less <u>queries</u>) at all. The criteria are the information by which a plan is selected for a query, but it does not "identify" the query.

PS Ref. No.: IBMK30164

For these reasons, alone and collectively, Applicants respectfully said that that *Snodgrass* is simply inapplicable to the present claims.

Because Applicants believe that reliance on *Snodgrass* is improper, the rejection is believed to be overcome, and Applicants respectfully request that the claims be allowed. Nevertheless, Applicants also make the following further observations with respect to *Rubert*.

The Examiner maintains that *Rubert* discloses "scheduling a time to execute the received query on the basis of the timeframe of at least one query execution schedule." However, *Rubert* actually discloses a user interface for scheduling a time to execute queries on the basis of user preference. See, *Rubert* Abstract. In *Rubert* there is no predefined query execution schedule (a data structure stored on a storage medium) that defines a timeframe for one or more queries. Therefore, *Rubert* does not schedule times for queries based on such a predefined timeframe.

Finally, the Examiner maintains that there is motivation to combine the teachings of *Snodgrass* and *Rubert*. However, it would be nonsensical to combine the references in the way the Examiner suggests. *Rubert* specifically teaches that a <u>user</u> schedules when a query executes. Applying *Snodgrass* however would mandate the scheduling of queries be decided based on cost-efficiency of various query execution plans. Thus, <u>users</u> would no longer be scheduling the queries as taught by *Rubert*. See, column 6, lines 24-30 describing how a user schedules query execution by clicking the "Schedule Query Execution" button shown in the user interface of Figure 1. As such, the suggested combination would render *Rubert* unsatisfactory for its intended purpose and/or change the principle of operation of *Rubert*, making the suggested combination improper for the reasons given in MPEP 2143.01 (V, VI). Therefore, because *Rubert* and *Snodgrass* teach away from each other, there is no motivation or suggestion to combine them.

Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

PATENT

App. Ser. No.: 10/618,410 Atty. Dkt. No. ROC920030164US1

PS Ref. No.: IBMK30164

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

If the Examiner believes any issues remain that prevent this application from going to issue, the Examiner is strongly encouraged to contact Gero McClellan, attorney of record, at (336) 643-3065, to discuss strategies for moving prosecution forward toward allowance.

Respectfully submitted, and S-signed pursuant to 37 CFR 1.4,

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